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| 09/255,987      | 02/23/1999  | TOMONARI YOSHIMURA   | 325772007400        | 9237             |

25227 7590 10/21/2002

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EXAMINER

LEE, TOMMY D

| ART UNIT | PAPER NUMBER |
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2624

DATE MAILED: 10/21/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/255,987

Applicant(s)

YOSHIMURA, TOMONARI

Examiner

Thomas D. Lee

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 July 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 and 18-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 10-16, 18, 19, 21-23 and 26 is/are rejected.
- 7) ☒ Claim(s) 8, 9, 20, 24 and 25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. This Office action is responsive to applicant's AMENDMENT UNDER 37 CFR 1.111, filed July 30, 2002. Claims 1-16 and 18-26 are pending.

### ***Claim Objections***

2. Claim 18 is objected to because of the following informalities: Claim 18 depends from canceled claim 17. Appropriate correction is required.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1-7, 10-19 and 21-23 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

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Art Unit: 2624

5. Claims 11-15 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,271,938 (Hikita).

Hikita teaches an image forming system comprising: a single data processing device (noting Fig. 5, image processing device (shaded box) comprises 1<sup>st</sup> thru 5<sup>th</sup> image processing means); a plurality of image readers connected to the single data processing device (1<sup>st</sup> thru 3<sup>rd</sup> image inputting means); and a plurality of image forming apparatuses connected to the single data processing device (1<sup>st</sup> and 2<sup>nd</sup> image outputting means), wherein the single data processing device handles image correction for the plurality of image readers and the plurality of image forming apparatuses (column 2, lines 43-65). The image processing device along with control means 111 handle image correction for the whole network of the plurality of image readers and the plurality of image forming apparatuses (column 2, lines 54-65); and operates as a server, controller and image transmission device (image processing device controlled by control means for serving or transmitting corrected image data to one or more image outputting means).

***Claim Rejections - 35 USC § 103***

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1-6, 10, 16, 18, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,717,839 (Ichikawa) in view of Hikita.

Regarding claims 1 (and corresponding method claim 21) and 4, Ichikawa teaches an image correction device for use in an image forming system which is

Art Unit: 2624

connectable to a plurality of image readers and a plurality of image forming apparatuses (read Abstract), the image correction device comprising a discriminating device for discriminating an image reader and an image forming apparatus which are connected to the image correction device (column 9, lines 38-53); memory for storing correction data relating to combinations of the image reader and image forming apparatus (column 7, lines 19-25; column 8, lines 4-37); and data correction means for correcting image data output from an image reader using the correction data relating to a specific combination of image reader and image forming apparatus (column 8, lines 38-47). The correction data for color printing include various combinations of gradient correction data, resolution data, density correction data and color correction data (column 7, lines 19-25).

Ichikawa does not teach a step of outputting the corrected data to an image forming apparatus, since the image data is corrected at the printer 12. However, this step is well known in the art. Hikita teaches an image processing device with 1<sup>st</sup> thru 5<sup>th</sup> image processing means (Fig. 5). The image processing means receive image data from image inputting means, and process the image data based on parameters set by a controller before transferring the image data to image outputting means (column 2, lines 43-65). It would have been obvious for one of ordinary skill in the art to modify the teaching of Ichikawa by providing a means for processing image data before transferring the image data to image outputting means, as taught by Hikita, so that the image processing corrections disclosed in Ichikawa may be performed even where a printer does not have the capability to perform such corrections.

Regarding claims 2 and 3, Ichikawa does not explicitly state that a plurality of image forming apparatuses are connected to a single image reader, or that a plurality of image readers are connected to a single image forming apparatus. However, Ichikawa does state that correction table data may be set for any desired combination of an image input device and a printer (column 8, lines 35-37). It would have been obvious for one of ordinary skill in the art that as long as there is a correction table corresponding to each combination of input device and printer, the number of input devices and printers which are connected to the image processor taught by Ichikawa is arbitrary, and thus providing a plurality of image forming apparatuses and a single image reader, or providing a plurality of image readers and a single image forming apparatus, would have been an obvious modification of Ichikawa for one of ordinary skill in the art.

Regarding claim 5, Ichikawa does not teach correction data for monochrome printing. However, monochrome printing is well known in the art, and one of ordinary skill in the art would have known, given the teaching of Ichikawa and the knowledge that the desire to enhance the appearance of image data is not limited to the enhancement of color images, that data correction for monochrome printing may be implemented in the same manner, so that correction may be achieved for these images as well.

Regarding claim 6 (and corresponding method claim 22), the data correction means taught by Ichikawa corrects the image data from the image reader based on updated correction data stored in the memory means, and outputs the corrected data to

Art Unit: 2624

the image forming apparatus (correction data selected by user in manual mode, read column 10, lines 35-57).

Regarding claim 10, the device taught by Ichikawa is a data processing device (note title of Ichikawa patent).

Claims 16 and 18 recite a storage medium for storing program software of an image correction device, the storage medium storing a storage program for performing steps recited in claim 1. This limitation is taught by Ichikawa (column 12, lines 30-42).

8. Claims 7, 19 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichikawa in view of Hikita as applied to claims 1 and 16 above, and further in view of U.S. Patent 6,178,007 (Harrington).

Ichikawa in view of Hikita does not teach means for requesting regeneration of the correction data to update the correction data stored in the memory means when a set time interval has elapsed after the last update of the correction data, as recited in claim 7 and similarly recited in claims 19 and 23. Harrington teaches this limitation (color look-up table automatically update periodically, read column 5, lines 29-41; column 6, lines 52-63). It would have been obvious for one of ordinary skill in the art to modify the combined teaching of Ichikawa and Hikita by providing a means for periodic, automatic updating of correction data, as taught by Harrington, so that printers connected to the image processor may be constantly adjusted without human intervention (column 5, lines 12-15).

Art Unit: 2624

9. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ichikawa in view of Hikita as applied to claim 1 above, and further in view of U.S. Patent 5,760,913 (Falk).

Ichikawa in view of Hikita does not teach means for generating correction data by comparing first image data with second image data, wherein the first image data is stored in the memory and outputted to the image forming apparatus and the second image data is created with the image reader by reading the image formed with the image forming apparatus based on the first image data. Falk teaches this limitation (data file printed by printer thereby generating calibration image, which is then scanned using a scanner, and the scanned image is compared with the data file; read Abstract). Thus, when combined with the teachings of Ichikawa and Hikita, image data may be calibrated to match color characteristics of a printer in a simple manner, no matter which combination of input and output devices are used. Therefore, it would have been obvious for one of ordinary skill in the art to modify the combined teaching of Ichikawa and Hikita by providing means for generating correction data such as taught by Falk.

***Allowable Subject Matter***

10. Claims 8, 9, 20, 24 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter: No prior art has been found to teach means for searching and use of correction data relating a first combination of image reader and image-forming apparatus having--



Art Unit: 2624

the most similar characteristics to a second combination of image reader and image forming apparatus that does not have correction data stored in memory means.

***Conclusion***

12. In view of new grounds for rejection not necessitated by amendment, this Office action is non-final.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas D. Lee whose telephone number is (703) 305-4870. The examiner can normally be reached on Monday-Friday (7:30-5:00), alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on (703) 308-7452. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



Thomas D. Lee  
Primary Examiner  
Art Unit 2624

tdl  
October 17, 2002